# IDEAS AT *Work*

## COMPUTERS/HILLEL SEGAL

# Zenith's Z-171 won lap-top race, but screen still difficult to read

The amazing story about the **Zenith Z-171** lap-top computer starts with a story about — none other than — IBM.

About nine months ago the rumors started that IBM was going to introduce a "lap-top" computer — much smaller than its then-current portable computer — that was compatible with the other computers in the IBM PC line. Its code name was "Clamshell," and the details were slowly leaked out and discussed in the trade press.

It was to be small and light enough to be carried easily, able to operate all the software that runs on a regular PC, and be inexpensive to boot. Sparked by the Internal Revenue Service and various other government agencies — mainly the military — which were interested in buying *tens of thousands* of the machines, worth hundreds of millions of dollars, a mad scramble began to develop and bring the machine to market.

As one might expect, a potential contract of this size did not go unnoticed by the competition, and at least a dozen PC look-alike manufacturers, among them Zenith, jumped into the fray and developed their own lap-top versions.

It was assumed, probably correctly, that the company that won the prize would get a jump on the competition and sell many more machines to businesses that would follow the government's lead.

For months, the rumor mill was active and the trade press was filled with gossip about the features of the IBM version.

All the while, the focus was solely on IBM, while the press virtually ignored the others.

After all, it seemed only natural that IBM would get the contract since the government's bid specified that the machine must be able to run all IBM software.

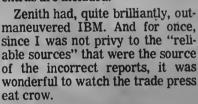From all appearances, the deck was stacked in IBM's favor.

It was not surprising, therefore, when a number of prominent na-

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quietly by Zenith several months before.

It had one unique feature that apparently won the hearts and minds of the government's bureaucrats: a built-in, "back-lit" liquid crystal display (LCD) screen.

The **IBM PC Convertible**, as IBM's new machine was called when it was subsequently unveiled in March, turned out to have a normal LCD screen, which is dependent upon ambient light to reflect off the characters.

The two machines operate the same software and cost about the same — about $2,600 — when normal extras are included.

Zenith had, quite brilliantly, outmaneuvered IBM. And for once, since I was not privy to the "reliable sources" that were the source of the incorrect reports, it was wonderful to watch the trade press eat crow.

After the announcement, Zenith offered to loan me one of the new machines, and here are some first-hand impressions based upon my use of the machine for the last six weeks:

✔ It's a remarkable technical achievement. It packs almost all the features of an IBM PC into a small package, runs all the IBM PC-compatible software, and works as advertised.

✔ The back-lit LCD screen is only marginally better than the normal LCD screen. I find them both hard to read and uncomfortable to use for longer than about 30 minutes at a time. And both are very susceptible to glare and must be viewed at precisely the right angle.

To make matters worse, as portable machines, they will be subjected to less-than-perfect lighting conditions much of the time.

My guess is that tens of thousands of government workers will complain bitterly about it.

✔ The machine does not accommodate a hard disk, nor can expansion boards be added. Thus, it is a poor choice for anyone who wants it to double as a desk-top computer

when a number of prominent national trade publications — notably PC Week, published by Ziff-Davis — reported in February that they had learned from "reliable sources" that IBM had indeed beaten back the competition and won the government contract.

Even though no official announcements were made, everyone then acted on the assumption that the reports were correct. The "experts" said, "I told you so."

Computer stores refused to even stock competitors' machines. And everyone waited for IBM to finally release the machine for public consumption.

Lo and behold, when the winner was finally announced in February, it was not IBM's computer at all — but the Zenith Z-171, a small machine that had been released

poor choice for anyone who wants it to double as a desk-top computer for business purposes.

In addition, it appears to run much slower than other PC-compatible machines.

✔ On the positive side, the machine includes batteries, which allow up to several hours of continuous use when a power outlet is not available.

This makes the machine truly portable.

Regardless of the drawbacks, the Zenith Z-171 should certainly be considered by anyone who is seriously considering the IBM PC Convertible.

Both machines have many deficiencies compared with regular PCs, but will be convenient for many people who need to take along a computer when they travel.

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